São Carlos School of Engineering

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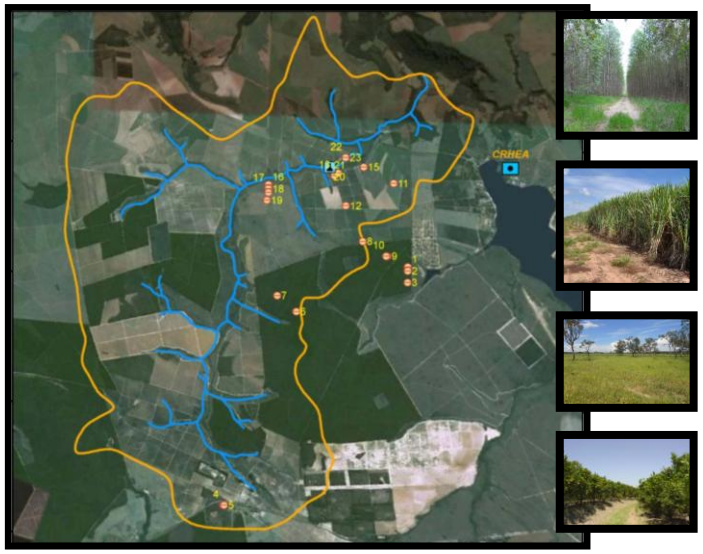
PÓS-GRADUAÇÃO em ENGENHARIA HIDRÁULICA e SANEAMENTO
PPG-SHS USP/SÃO CARLOS

LHC COMPUTATIONAL HYDRAULICS LABORATORY

RECHARGE FOLLOWING LAND USE CHANGES IN THE GUARANI AQUIFER SYSTEM OUTCROP AREA, BRAZIL

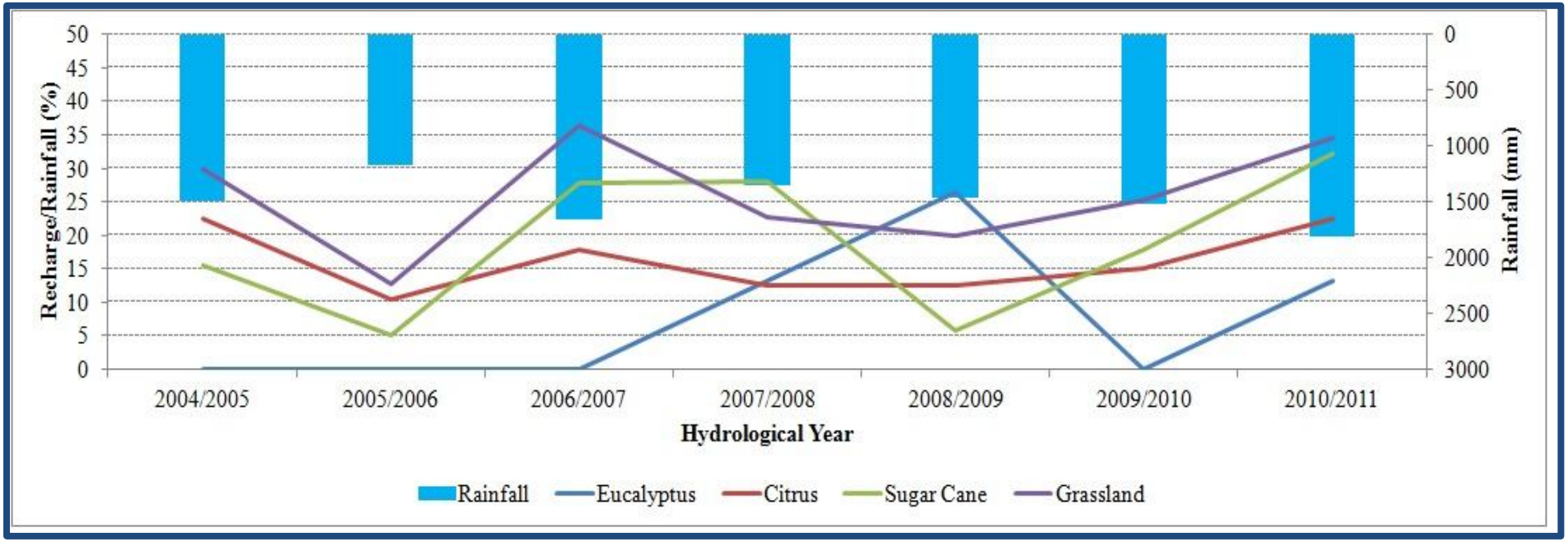


Purpose: We have focused on estimating recharge rates and its relation with rainfall and land use in Onça Creek watershed, located in representative outcrop area of the Guarani Aquifer System (GAS).

Implications: Despite the limitations and uncertain of the methods used, we presented the most long-term detailed results about and land use effects on recharge processes in an outcrop zone of the GAS. Our findings are subject to important hydrologic applications, especially the long-term (from 2004 to 2011) average recharge rate of the GAS.

Murilo Cesar Lucas, Ph.D. Student, e-mail: muriloclucas@gmail.com



Lucas, M. C.; Guarabara, R. C.; Wendland, E. Estimativa de recarga subterrânea em area de afloramento do Sistema Aquifero Guarani. *Boletín Geológico y Minero, 123 (3): 311-323.* ISSN: 0366-0176.

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SOLUTE AND COLLOID CONTAMINANT TRANSPORT IN FRACTURED AQUIFERS: BENCH-SCALE LABORATORY TESTS AND NUMERICAL SIMULATION

Purpose: This research aimed at investigate the effect of geometry and distribution of fracture aperture on fluid flow and solute and colloid transport in a single, saturated, variable-aperture fracture rock.

Implications: The results of this research will be particularly useful to protecting groundwater resources against contamination, and determining remediation strategies for Serra Geral Aquifer contamination.The knowledge contaminants migration in Serra Geral Aquifer opens the possibility of new remediation techniques, according to the local hydrogeological conditions.

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